

REMARKS

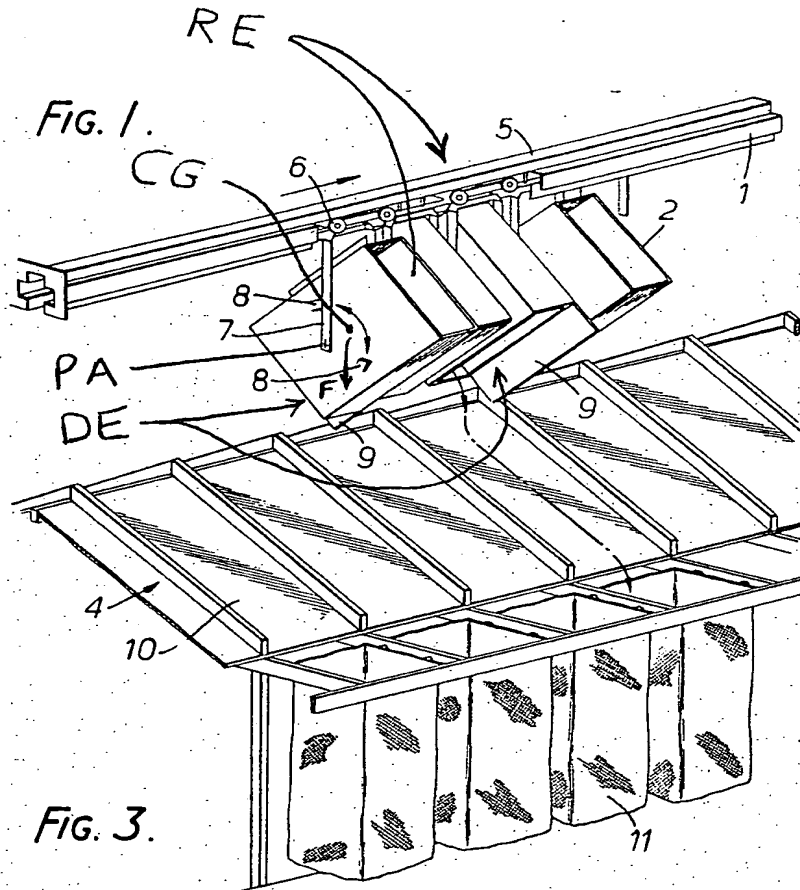
Claims 1-3, 5-23, and 39 were examined in the most recent Office action dated October 5, 2006. All claims stand rejected as obvious over Emsley, U.S. Patent 4,509,635 in view of Boyd, U.S. Patent 6,208,908. By way of this response, applicant respectfully requests allowance of all claims.

Claims 1-3 and 5-14 are Allowable.

Applicants respectfully traverse the rejection to claim 1 as obvious over Emsley in view of Boyd. Applicant has amended claim 1 to clarify the differences between the previously claimed subject matter and the cited references. Independent claim 1, as amended, recites a dumping station including, in part, a bin rotatable about an axis, the bin having a center of gravity laterally offset from the axis *toward the discharge end*. An electronically controllable electronic latch selectively engages the bin against the force of gravity. A controller is programmed to generate a release signal, wherein upon the latch releasing the bin, the bin automatically rotates about an axis to the dump mode to discharge articles in the bin onto a conveyor under the force of gravity.

Emsley fails to describe either the structure or the function recited in claim 1. Emsley discloses a bin 2 rotatably mounted to brackets 7. As shown in the attached drawing on the next page, the bin 2 has a discharge end DE coverable by the discharge flap 9, and a receiving end RE opposite the discharge end. Emsley has a pivot axis PA at a point where the bracket 7 connects to the bin 2. Emsley states, "The pivot axis of each bin is located substantially below the centre of gravity of the bin so that the bin is bistable in the sense that it is biased into each position with an over-centre action when being rotated from one position to another." Emsley, col. 2, lines 58-62. Accordingly, the center of gravity CG in Emsley is

offset from the pivot axis *toward the receiving end*, not toward the discharge end, as recited in pending claim 1. Boyd fails to disclose a rotatable bin at all, and the Office action does not allege that it does.



Claim 1 further recites that the electronically controllable, releasable latch secures the bin in the pick mode. The Office action argues that “the tray in the level configuration can be construed as a pick mode.” See Office action, page 3. The Office action further argues that Emsley discloses “a releasable latch 19 positioned to retain the bin in the pick mode” However, the detents 19 shown in Fig. 11 (which are position at stops 8 shown in Fig. 3 above) only engage the brackets 7 when the bin is tilted, and not in the pick mode as defined by the Office action itself. In other words, the ‘latch’ 19 does not retain the bin in the ‘level

configuration' defined as the pick mode. Boyd also fails to disclose a releasable latch that secures the bin in a pick mode, and the Office action does not allege this point either.

The completely different construction of the bins leading to a different center of gravity provides different functionality than that of Emsley. For example, claim 1 recites that when the latch is released, the bin automatically switches from the pick mode to the dump mode under the force of gravity. To the contrary in Emsley, if the plunger of the detent (or 'latch') 19 were retracted inwardly to release the latch, the bin 2 would not move, because the position of the center of gravity of the bin would exert a force  $F$  and hold the bin in the same position with the stop 8 bearing on the bracket 7. "[T]he bin is bistable in the sense that it is biased into each position with an over-centre action when being rotated from one position to another." Emsley, col. 2, lines 59-62. Accordingly, Emsley fails to disclose that the bin is automatically moveable by gravity when the latch 19 releases the bin.

Further, there is no motivation to add the electronic controller 18 and its control to the detent 19 of Emsley. The Office action admits that Emsley fails to disclose a controller coupled to the latch. The Office action argues that Boyd discloses a controller 18 coupled to a latch and that is programmed to generate a release signal to release the latch. The Office action has failed to make a *prima facie* case of obviousness, however, because it has failed to even allege a motivation to combine. On the contrary, there is no motivation to combine the disclosures of the references, because adding an electronically controllable latch to Emsley would serve no purpose. In one embodiment, the spring-loaded detent 19 helps to hold the bins of Emsley in place. Adding electronic control to the detent 19 adds no functionality to Emsley's system because the position of the bins 2 are controlled by the scrolls 12. The scrolls 12 overcome the force of the detent 19 with no necessity of electronic control of the detent.

Because Emsley discloses a completely different structure to move its bins 2, there is no suggestion to modify the device of Emsley to have the structure and function as claimed herein. Boyd fails to make up for the deficiencies of Emsley. Accordingly, claim 1 is allowable over the art of record. Dependent claims 2, 3, and 5-14 are allowable for at least the same reasons.

Claims 15-23 are Allowable.

Applicants respectfully traverse the rejection to independent claim 15 as obvious over Emsley in view of Boyd. Claim 15 has been amended solely to clarify that the stationary support is mounted to a substrate. The bin is hingedly mounted to the stationary support. In contrast, the bins 2 of Emsley are hingedly mounted to brackets 7. The brackets 7 are mounted to a conveyor system and convey the bins between "loading points 3 and destination points 4". Emsley, col. 2, lines 36-37. The brackets therefore are not stationary, because they move along the conveyor system. The brackets are also not mounted to a substrate, because they hang downwardly from an overhead conveyor chain 6. Likewise, the bins of Boyd are conveyed about a conveyor system, and therefore Boyd fails to disclose a stationary support mounted to a substrate. Accordingly, claim 15 is novel.

Claim 15 is also non-obviousness. There is no suggestion to mount the bins of either Emsley or Boyd to a stationary support mounted to a substrate, because to do so would both destroy the conveying systems disclosed therein, and would further change the principle of their respective operations. Allowance of claim 15 is respectfully requested. Dependent claims 16-23 are allowable for at least the same reasons.

Claim 39 is Allowable.

Applicants respectfully traverse the rejection to claim 39 as obvious over Emsley in view of Boyd. Claim 39 has been amended for clarity. Claim 39 recites, in part, that the processor is programmed to generate the first release signal as a selected area of the conveyor passes the first bin to dump the first set of articles onto the selected area and is programmed to generate the second release signal as the same selected area of the conveyor passes the second bin to dump the second set of articles onto that selected area.

The claimed system allows for multiple bins filled with articles to dispense their respective articles onto the same portion of the conveyor. Oftentimes in warehouses, articles are taken from shelves and placed on conveyors in a group. The group is then delivered by the conveyor out of the shelving area of the warehouse to an area where the group of articles are packaged together in a single unit for delivery to a retail outlet. The claimed system allows a user to fill multiple bins (for a large order), and the controller can sequentially dump the contents of the bins onto the same area of the conveyor as the conveyor passes the bins to create a combined group of articles on the conveyor many times larger than the volume of the bins. None of the cited references disclose or suggest this structure or capability.

Initially, the Office action admits that Emsley fails to disclose that the bins 2 dump their articles onto a conveyor. This is correct, because Emsley discloses that the articles are dumped into containers 11.

While Boyd discloses a conveyor, Boyd fails to disclose that the bins discharge articles onto a conveyor, and further fails to disclose that two different bins discharge articles onto the same area of the conveyor as the conveyor passes the bins. Boyd discloses that bins that discharge articles onto a table 124. "The discharge opening is in communication with a slide 137 that channels the articles onto the table 124 for packing by the operator." Boyd, col.

10, lines 60-62. The user then packages the articles into a pack and sets the newly formed pack onto a conveyor belt 138. "The lower conveyor 138 is provided to deliver the packaged articles to a location in preparation for delivery to the customer." Boyd, col. 11, lines 32-33. Accordingly, Boyd fails to disclose that the controller 18 is programmed to generate release signals for the bins relative to the conveyor as recited in claim 39.

There is further no motivation to alter the disclosed system of Boyd to that as claimed, because to do so would destroy the operability of Boyd. To modify Boyd's system such that the bins dump the articles on the conveyor would eliminate the ability of the user to create the packages of articles prior to placing on the conveyor. Accordingly, the modified system could not package the articles prior to delivery as explicitly desired by Boyd.

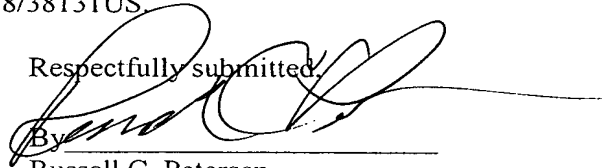
Because no cited reference discloses or suggests the features noted above, claim 39 is allowable.

CONCLUSION

In view of the foregoing remarks, the claims as now appearing in this application are in form for allowance. The fee for a Request for Continued Examination and a two month extension of time is included with this amendment. The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 29488/38131US.

Dated: March 5, 2007

Respectfully submitted,

  
By \_\_\_\_\_

Russell C. Petersen  
Registration No.: 53,457  
MARSHALL, GERSTEIN & BORUN LLP  
233 S. Wacker Drive, Suite 6300  
Sears Tower  
Chicago, Illinois 60606-6357  
(312) 474-6300  
Attorney for Applicant